8EHQ-0303-15312

American Chemistry Council *Good Chemistry Makes It Possible*

March 20, 2003

Hand Delivered

TSCA Document Control Office (7407)
EPA East Building, Room 6428
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
1201 Constitution Avenue N.W.
Washington, DC 20460-0001

Contain NO CBI

Attention: TSCA Section 8(e) Coordinator

RE: MCPD Dimer – Mouse Micronucleus Study

Dear Sir or Madam:

The American Chemistry Council Olefins Panel submits this letter on behalf of certain of its members[1] pursuant to Section 8(e) of the Toxic Substances Control Act (TSCA) to inform EPA of mortality findings in the range-finding portion of a mouse micronucleus study on methylcyclopentadiene dimer concentrate (MCPD Dimer) in rats and mice. The Panel has not made a determination as to whether a significant risk of injury to health or the environment is actually presented by the preliminary findings.

MCPD Dimer was tested pursuant to the Olefins Panel's testing plan for the Resin Oils and Cyclodiene Concentrates Category under the High Production Volume Chemical Challenge Program.[2] MCPD Dimer Concentrate is isolated by distillation from the C8+ fraction of a thermally processed pyrolysis gasoline. Typical purity is 90% as the dimer and the main impurities in the stream are codimers and trimers of DCPD and MCPD. The CAS Registry number used to identify MCPD Dimer is 26472-00-4 (4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydrodimethyl-).

[1] The sponsor companies are Chevron Phillips Chemical Company LP, The Dow Chemical Company, Equistar Chemicals, LP, ExxonMobil Chemical Company, The Goodyear Tire & Rubber Company, NOVA Chemicals Inc., Noveon, and Shell Chemical Company LP.

[2] The test plan is available at http://www.epa.gov/chemrtk/olefins/olefintp.pdf.

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In the range-finding portion of the micronucleus study 3 male and 3 female mice received DCPD Dimer at a dose of 2,000 mg/kg body weight in corn oil. One male and one female were found dead approximately 24 hours after the second dosing. In the full study, no mortality was seen in an additional 7 male mice and 7 female mice receiving the same amount of the test substance. The mouse micronucleus test was negative.

A summary of the findings is enclosed. The final report is not yet available but will be forwarded when received from the laboratory.

If you have any questions, please contact me at 301 924 2006 or Elizabeth_Moran@americanchemistry.com.

Yours truly,

Elizabeth J. Moran, Ph.D.
Manager, Olefins Panel

cc: Richard H. Hefter (MC 7403)

DuPont
Haskell Laboratory

cc: L.A. Belcher
A.M. Kaplan
M.S. Bogdanffy

February 26, 2003

TO: Elizabeth Moran, Ph.D.
Managing Director, CHEMSTAR
American Chemistry Council
1300 Wilson Blvd.
Arlington, VA 22209

FROM: Maria Donner, Ph.D.
Senior Research Toxicologist
Genetic Toxicology/Biochemical and Molecular Toxicology

RE: Potentially Reportable Toxicity Data
ACC Reference Number OLF-92.0-HPV789-DHL

SUMMARY OF FINDINGS:

The test substance was evaluated for genotoxicity in the *in vivo* mammalian erythrocyte mouse micronucleus test using both male and female Crl:CD-1®(ICR)BR mice. The in vivo mouse micronucleus test was negative.

Preliminary Toxicity Test (Rangefinder)

A rangefinder was conducted to determine the dose levels for the definite study. Three mice/sex were administered the test substance twice, at an approximately 24-hour interval, by oral intubation. The test substance concentration was 2000 mg/kg of body weight, and corn oil was used as vehicle. Clinical signs included wet underbody and ruffled fur. Approximately 24 hours after the second dosing 1/3 females were found dead. All animals on the range finder study experienced a transient weight loss. On the third day post dosing, 1/3 males were found dead. No mortality or morbidity was observed in the remaining 2/3 males or 2/3 females.

Micronucleus Test

No mortality or morbidity was observed in any sex in any dose group.

Groups of male and female mice were administered the test substance twice, at an approximately 24-hour interval, by oral intubation. The test substance concentrations were 500, 1000, and 2000 mg/kg of body weight, and corn oil was used as vehicle. The animals were sacrificed approximately 24 hours after the second dosing.

Clinical signs observed in male animals at 2000 mg/kg included eyes partially closed in 5/7 animals, wet fur in 1/7 animals, ruffled fur in 5/7, prostration in1/7 animals, abnormal gait in 3/7 animals, discharge in 6/7 animals, tremors in 1//7 animals, and lethargy in 4/7 animals. Clinical signs observed in male animals at 1000 mg/kg included wet fur in 1/5 animals, ruffled fur in 1/5 animals, carriage in 1/5 animals, and stained fur/skin in 1/5 animals. At 500 mg/kg, the only observation was ruffled fur in 1/5 animals.

Clinical signs observed in female animals at 2000 mg/kg included eyes partially closed in 2/7 animals, ruffled fur in 4/7 animals, prostration in 1/7 animals, abnormal gait in 2/7 animals, erratic and fast breathing in 1/7 animals, tremors in 2/7 animals, and lethargy in 5/7animals. Clinical signs observed in female animals at 1000 mg/kg included wet fur in 1/5 animals, ruffled fur in 2/5 animals, abnormal gait in 2/5 animals, discharge in 1/5animals, and lethargy 1/5 animals. No clinical signs of toxicity were observed in the 5/5 animals in the 500 mg/kg dose group.

No clinical signs of toxicity were observed in the negative control groups at any point during the study.

COMPOUND NAME: Methylcyclopentadiene Dimer
HASKELL LABORATORY WORK REQUEST NO.: 14293
HASKELL SAMPLE NO.: 25518
HASKELL SERVICE CODE: 572
TEST SYSTEM: Mice